INDEX TO AUTHORS.

A

Allen, Edgar. See Doisy, Ralls, Allen, and Johnston, 711

Anderson, Arthur K., and **Schutte, Harry S.** The determination of nitrogen in connection with the wet combustion method for carbon, 57

Anderson, R. J. A contribution to the chemistry of grape pigments. III. Concerning the anthocyans in Scibel grapes, 685

— and **Nabenhauer, Fred P.** A contribution to the chemistry of grape pigments. II. Concerning the anthocyans in Clinton grapes, 97

Anderson, William E., and **Smith, Arthur H.** The effect of acute scurvy on the subsequent nutrition and growth of guinea pigs, 181

Austin, J. Harold. A note on the estimation of carbon dioxide in serum in the presence of ether by the Van Slyke method, 345

—, **Cullen, G. E., Gram, H. C.,** and **Robinson, H. W.** The blood electrolyte changes in ether acidosis, 829

B

Barr, David P. See Loebel, Barr, Tolstoi, and Himwich, 9

Baudish, Oskar, and **Welo, Lars A.** On the mechanism of the catalytic action of iron salts. I, 261

Baumann, Emil J. A simple method for preparing large quantities of yeast nucleic acid as a magnesium compound, 1

Bell, Marion. See Blatherwick, Bell, and Hill, 241

Benedict, Stanley R., and **Theis, Ruth C.** A modification of the molybdic method for the determination of inorganic phosphorus in serum, 63

—. See Nash and Benedict, 423

—. See Theis and Benedict, 67

Black, A. See Steenbock and Black, 405

Blatherwick, N. R., Bell, Marion, and Hill, Elsie. Some effects of insulin on the carbohydrate and phosphorus metabolism of normal individuals, 241

Blumenstock, Julius, and **Ickstadt, Albert.** A note on the rôle of the liver in parathyroid tetany, 91

XUM

Bodansky, Aaron. A study of a milk-coagulating enzyme of *Solanum elaeagnifolium*, 365

Borgstrom, P. See Denis and Borgstrom, 109

Bradley, H. C. See Chen, Meek, and Bradley, 807

—. See Hertzman and Bradley, 275

C

Carman, J. S. See Mattill, Carman, and Clayton, 729

Chen, K. K., Meek, Walter, and **Bradley, H. C.** Studies of autolysis. XII. Experimental atrophy of muscle tissue, 807

Chibnall, Albert Charles. Spinacin, a new protein from spinach leaves, 303

Clayton, M. M. See Mattill, Carmen, and Clayton, 729

Cohn, David J. See Nelson and Cohn, 193

Collins, Arnold M. See Jacobs and Collins, 387

Colwell, A. R. Insulin and phlorhizin glycosuria, 289

Cox, Gerald J. See Rose and Cox, 747

Cullen, G. E. See Austin, Cullen, Gram, and Robinson, 829

D

Dakin, H. D. The formation of *l*-malic acid as a product of alcoholic fermentation by yeast, 139

—. A note on the presence of valine in zein, 137

Daniels, Amy L., and **Stearns, Genevieve.** The effect of heat treatment of milk feedings on the mineral metabolism of infants, 225

Deas, J. Yeast growth-promoting vitamin tested for its effects on animals, 5

Denis, W., and **Borgstrom, P.** A study of the effect of temperature on protein intake, 109

Dienes, L. Further studies on the determination of calcium, magnesium, and phosphorus in animal substances, 77

—. A note on the gravimetric microchemical technique, 73

Doisy, Edward A., Ralls, J. O., Allen, Edgar, and **Johnston, C. G.** The extraction and some properties of an ovarian hormone, 711

Dunn, L. C. The effect of cod liver oil in various amounts and forms on the growth of young chickens, 129

E

Eaton, Emily P. See Ronzoni, Koechig, and Eaton, 465

F

Felsher, Augusta R. See Wang and Felsher, 659

Fred, E. B. See SCHMIDT, PETERSON, and FRED, 163

Friedemann, T. E. See SHAFFER and FRIEDEMANN, 585

G

Gram, H. C. Chlorides of serum, blood, and corpuscles in various pathological conditions, 337

—. See AUSTIN, CULLEN, GRAM, and ROBINSON, 829

Greenwald, Isidor. Is there a toxin in the blood of parathyroidectomized dogs? 33

—. Some chemical changes in the blood of dogs after thyroparathyroidectomy, 649

H

Haller, H. L. See LEVENE, TAYLOR, and HALLER, 157

Harington, C. R., and **Van Slyke, Donald D.** On the determination of gases in blood and other solutions by vacuum extraction and manometric measurement. II, 575

Hart, E. B. See STEENBOCK, HART, and JONES, 775

Hastings, A. Baird, and **Sendroy, Julius, Jr.** The colorimetric determination of blood pH at body temperature without buffer standards, 695

—, —, **Murray, Cecil D.,** and **Heidelberger, Michael.** Studies of gas and electrolyte equilibria in blood. VII. The effect of carbon monoxide on the acidity of hemoglobin, 317

Hawkins, James A. The acid-base equilibrium of the blood of normal guinea pigs, rabbits, and rats, 147

Heidelberger, Michael. See HASTINGS, SENDROY, MURRAY, and HEIDELBERGER, 317

Hendrix, Byron M., and **McAmis, Ava J.** Alkalosis produced by injections of hydrazine sulfate in dogs, 45

Hertzman, A. B., and **Bradley, H. C.** Studies of autolysis. XI. Relation of the isoelectric point to digestibility, 275

Hill, Elsie. See BLATHERWICK, BELL, and HILL, 241

Himwich, Harold E. See LOEBEL, BARR, TOLSTOI, and HIMWICH, 9

Hirsch, Edwin F. Changes in the hydrogen ion concentration of the blood with coagulation, 795

Howe, Paul E. The differential extraction and precipitation of the soluble proteins of muscle, with data on the concentration of proteins in the muscle of the calf, cow, and rabbit, 493

Hubbard, Roger S., and **Wright, Floyd R.** Variations in the rate of excretion of the acetone bodies during the day, 377

XUM

I

Ickstadt, Albert. See BLUMENSTOCK and ICKSTADT, 91

J

Jacobs, Walter A., and **Collins, Arnold M.** Strophanthin. V. The isomerization and oxidation of isostrophanthidin, 387

Johnston, C. G. See DOISY, RALLS, ALLEN, and JOHNSTON, 711

Jones, J. H. See STEENBOCK, HART, and JONES, 775

K

Koechig, Irene. See RONZONI, KOECHIG, and EATON, 465

L

Leavenworth, Charles S. Note on the basic amino acids yielded by casein, 315

—. See OSBORNE, LEAVENWORTH, and NOLAN, 309

Leiboff, S. L. A simplified method for cholesterol determination in blood, 177

Levene, P. A., Simms, H. S., and **Pfaltz, Mimosa H.** The relation of chemical structure to the rate of hydrolysis of peptides. I. On the synthesis, on the physical constants, and on the rates of hydrolysis of methylated peptides, 445

—, **Taylor, F. A.,** and **Haller, H. L.** On lignoceric acid, 157

Levene, P. A., and **van der Hoeven, B. J. C.** The concentration of vitamin B, 429

Lewis, Howard B. See UPPEGRAFF and LEWIS, 633

Loebel, Robert O., Barr, David P., Tolstoi, Edward, and **Himwich, Harold E.** Studies of the effect of exercise in diabetes. II. Lactic acid formation in phlorhizin diabetes, 9

M

McAmis, Ava J. See HENDRIX and MCAMIS, 45

Mattill, H. A., Carman, J. S., and **Clayton, M. M.** The nutritive properties of milk. III. The effectiveness of the X substance in preventing sterility in rats on milk rations high in fat, 729

Meek, Walter. See CHEN, MEEK, and BRADLEY, 807

Murray, Cecil D. See HASTINGS, SENDROY, MURRAY, and HEIDELBERGER, 317

N

Nabenhauer, Fred P. See ANDERSON and NABENHAUER, 97

Nash, Thomas P., Jr., and **Benedict, Stanley R.** On the mechanism of phlorhizin diabetes. Second paper, 423

Neill, James M. See VAN SLYKE and NEILL, 523

Nelson, J. M., and **Cohn, David J.** Invertase in honey, 193

Nolan, Laurence S. See Osborne, Leavenworth, and Nolan, 309

O

Osborne, Thomas B., Leavenworth, Charles S., and Nolan, Laurence S. A note on Dakin's method as applied to edestin 309

P

Peterson, W. H. See Schmidt, Peterson, and Fred, 163

Petrén, Karl. Low nitrogen metabolism with low carbohydrate diet in diabetes, 355

Pfaltz, Mimosa H. See Levene, Simms, and Pfaltz, 445

Pucher, George W. See Youngburg and Pucher, 741

Q

Quick, Armand J. A method for the quantitative determination of menthol glycuronic acid in urine, 667

—. The synthesis of menthol glycuronic acid in the rabbit, 679

R

Ralls, J. O. See Doisy, Ralls, Allen, and Johnston, 711

Robinson, H. W. See Austin, Cullen, Gram, and Robinson, 829

Ronzoni, Ethel, Koechig, Irene, and Eaton, Emily P. Ether anesthesia. III. Rôle of lactic acid in the acidosis of ether anesthesia, 465

Rose, W. C., and Cox, Gerald J. The relation of arginine and histidine to growth, 747

S

Schmidt, E. G., Peterson, W. H., and Fred, E. B. The formation of *l*-leucic acid in the acetone-butyl alcohol fermentation, 163

Schutte, Harry S. See Anderson and Schutte, 57

Sendroy, Julius, Jr. See Hastings and Sendroy 695

—. See Hastings, Sendroy, Murray, and Heidelberger, 317

Shaffer, P. A., and Friedemann, T. E. Antiketogenesis. V. The ketolytic reaction; action of glycol aldehyde and of glyoxal, 575

Simms, H. S. See Levene, Simms, and Pfaltz, 445

Smith, Arthur H. See Anderson and Smith, 181

Smith, Lawrence Weld. The experimental feeding of dried breast milk, 625

Stearns, Genevieve. See Daniels and Stearns, 225

Steenbock, H., and Black, A. Fat-soluble vitamins. XVII. The induction of growth-promoting and calcifying properties in a ration by exposure to ultra-violet light, 405

XUM

Steenbock, H., Hart, E. B., and **Jones, J. H.** Fat-soluble vitamins. XVIII. Sunlight in its relation to pork production on certain restricted rations, 775

T

Taylor, F. A. See LEVENE, TAYLOR, and HALLER, 157

Theis, Ruth C., and **Benedict, Stanley R.** The determination of phenol in the blood, 67

—. See BENEDICT and THEIS, 63

Tolstoi, Edward. See LOEBEL, BARR, TOLSTOI, and HIMWICH, 9

U

Updegraff, Helen, and **Lewis, Howard B.** A quantitative study of some organic constituents of the saliva, 633

V

van der Hoeven, B. J. C. See LEVENE and VAN DER HOEVEN, 429

Van Slyke, Donald D., and **Neill, James M.** The determination of gases in blood and other solutions by vacuum extraction and manometric measurement. I, 523

Van Slyke, Donald D. See HARINGTON and VAN SLYKE, 575

Vickery, Hubert Bradford. Some nitrogenous constituents of the juice of the alfalfa plant. II. The basic nitrogen, 117

W

Wang, Chi Che, and **Felsher, Augusta R.** The effect of alcoholic extract of commercial granular glucose on urinary reducing substance, 659

Welo, Lars A. See BAUDISH and WELO, 261

Wright, Floyd R. See HUBBARD and WRIGHT, 377

Y

Youngburg, Guy E., and **Pucher, George W.** Studies on pentose metabolism. I. A colorimetric method for the estimation of furfural, 741

INDEX TO SUBJECTS.

A

Acetone:
-Butyl alcohol fermentation, *l*-leucic acid formation in (SCHMIDT, PETERSON, and FRED) 163

Acetone bodies:
Excretion, variation in rate during day (HUBBARD and WRIGHT) 377

Acid-base equilibrium:
Blood of normal guinea pigs, rabbits, and rats (HAWKINS) 147

Acidity:
Hemoglobin, effect of carbon monoxide on (HASTINGS, SENDROY, MURRAY, and HEIDELBERGER) 317

Acidosis:
Ether anesthesia, rôle of lactic acid in (RONZONI, KOECHIG, and EATON) 465
—, blood electrolyte changes in (AUSTIN, CULLEN, GRAM, and ROBINSON) 829
Studies (HASTINGS and SENDROY) 695

Alcohol:
Extract of commercial granular glucose, effect on urinary reducing substance (WANG and FELSHER) 659

Alcohol—*continued:*
Fermentation by yeast, *l*-malic acid as a product (DAKIN) 139

Alfalfa:
Plant, juice, nitrogenous constituents (VICKERY) 117

Alkalosis:
Hydrazine sulfate injections in dogs, alkalosis produced by (HENDRIX and MCAMIS) 45

Amino acids:
Basic, yielded by casein (LEAVENWORTH) 315

Anesthesia:
Ether, acidosis, rôle of lactic acid in (RONZONI, KOECHIG, and EATON) 465

Anthocyan:
Grapes, Clinton (ANDERSON and NABENHAUER) 97
—, Seibel (ANDERSON) 685

Antiketogenesis:
(SHAFFER and FRIEDEMANN) 585

Arginine:
Growth, relation to (ROSE and COX) 747

Atrophy:
Muscle tissue (CHEN, MEEK, and BRADLEY) 807

XUM

Autolysis:
Studies (Chen, Meek, and Bradley) 807
— (Hertzman and Bradley) 275

B

Blood:
Acid-base equilibrium (Hawkins) 147
Chlorides of, in pathological conditions (Gram) 337
Cholesterol in (Leiboff) 177
Coagulation, hydrogen ion concentration changes (Hirsch) 795
Dog, chemical changes after thyroparathyroidectomy (Greenwald) 649
Electrolyte changes in ether acidosis (Austin, Cullen, Gram, and Robinson) 829
— equilibrium in (Hastings, Sendroy, Murray, and Heidelberger) 317
Gas determination by manometric extraction (Harington and Van Slyke) 575
—, — — — extraction (Van Slyke and Neill) 523
—, — — vacuum extraction (Harington and Van Slyke) 575
—, — — — extraction (Van Slyke and Neill) 523
Blood—*continued:*
Gas equilibrium in (Hastings, Sendroy, Murray, and Heidelberger) 317
Hydrogen ion, colorimetric determination, at body temperature without buffer standards (Hastings and Sendroy) 695
Parathyroidectomized dog, toxin in (Greenwald) 33
Phenols in (Theis and Benedict) 67
Buffer:
Standards, colorimetric determination of blood pH at body temperature without (Hastings and Sendroy) 695
Butyl alcohol:
Fermentation, acetone-butyl alcohol, *l*-leucic acid formation in (Schmidt, Peterson, and Fred) 163

C

Calcium:
Animal substances (Dienes) 77
Carbohydrate:
Diet, low, low nitrogen metabolism with, in diabetes (Petrén) 355
Metabolism of normal individuals, effect of insulin on (Blatherwick, Bell, and Hill) 241
Carbon:
Combustion method, wet, nitrogen determination in connection with (Anderson and Schutte) 57

Carbon dioxide:
Serum, in presence of ether by Van Slyke method (Austin) 345
Carbon monoxide:
Acidity of hemoglobin, effect on (Hastings, Sendroy, Murray, and Heidelberger) 317
Casein:
Amino acids, basic, yielded by (Leavenworth) 315
Catalysis:
Iron salts, mechanism (Baudisch and Welo) 261
Cerasin:
Lignoceric acid from (Levene, Taylor, and Haller) 160
Chloride:
Blood in pathological conditions (Gram) 337
Corpuscles in pathological conditions (Gram) 337
Serum in pathological conditions (Gram) 337
Chloroacetyl-glycine:
(Levene, Simms, and Pfaltz) 450
Chloroacetyl-sarcosine:
(Levene, Simms, and Pfaltz) 450
Cholesterol:
Blood (Leiboff) 177
Chymase:
Activity (Bodansky) 367
Coagulation:
Blood, hydrogen ion concentration changes (Hirsch) 795
Cod liver oil:
Growth of young chickens, effect on (Dunn) 129
Combustion method:
Carbon, nitrogen determination in connection with (Anderson and Schutte) 57
Corpuscles:
Chlorides of, in pathological conditions (Gram) 337

D

Diabetes:
Carbohydrate diet, low, low nitrogen metabolism with (Petrén) 355
Exercise in, effect (Loebel, Barr, Tolstoi, and Himwich) 9
Phlorhizin, lactic acid formation in (Loebel, Barr, Tolstoi, and Himwich) 9
—, mechanism (Nash and Benedict) 423
Diet:
Carbohydrate, low, low nitrogen metabolism with, in diabetes (Petrén) 355
Digestibility:
Isoelectric point, relation to (Hertzman and Bradley) 275

E

Edestin:
Dakin's method applied to (Osborne, Leavenworth, and Nolan) 309

XUM

Electrolyte:
Blood, changes in ether acidosis (Austin, Cullen, Gram, and Robinson) 729
Equilibrium in blood (Hastings, Sendroy, Murray, and Heidelberger) 317
Enzyme:
Milk-coagulating, of *Solanum elaeagnifolium* (Bodansky) 365
Equilibrium:
Electrolyte, in blood (Hastings, Sendroy, Murray, and Heidelberger) 317
Gas, in blood (Hastings, Sendroy, Murray, and Heidelberger) 317
Ether:
Acidosis, blood electrolyte changes in (Austin, Cullen, Gram, and Robinson) 729
Anesthesia, acidosis, rôle of lactic acid in (Ronzoni, Koechig, and Eaton) 465
Carbon dioxide in serum in presence, by Van Slyke method (Austin) 345
Exercise:
Diabetes, effect in (Loebel, Barr, Tolstoi, and Himwich) 9

F

Fat:
Milk rations high in, effectiveness of X substance in preventing sterility in rats on (Mattill, Carman, and Clayton) 729
Fat—*continued:*
-Soluble vitamins (Steenbock and Black) 405
— — (Steenbock, Hart, and Jones) 775
Furfural:
Colorimetric method for estimation (Youngburg and Pucher) 741

G

Gas:
Blood, determination by manometric measurement (Harington and Van Slyke) 575
—, — — — measurement (Van Slyke and Neill) 523
—, — — vacuum extraction (Harington and Van Slyke) 575
—, — — — extraction (Van Slyke and Neill) 523
Equilibrium in blood (Hastings, Sendroy, Murray, and Heidelberger) 317
Glucose:
Alcoholic extract of commercial granular, effect on urinary reducing substance (Wang and Felsher) 659
Glycol aldehyde:
Action (Shaffer and Friedemann) 585
Glycosuria:
Phlorhizin, insulin and (Colwell) 289
Glycuronic acid:
Menthol, in urine (Quick) 667
—, synthesis, in rabbit (Quick) 679

Glycyl-sarcosine:
(Levene, Simms, and Pfaltz) 450
Glyoxal:
Action (Shaffer and Friedemann) 585
Grape:
Clinton, anthocyans in (Anderson and Nabenhauer) 97
Pigments, chemistry (Anderson) 685
—, — (Anderson and Nabenhauer) 97
Seibel, anthocyans in (Anderson) 685
Growth:
Arginine, relation (Rose and Cox) 747
Chickens, young, effect of cod liver oil on (Dunn) 129
Histidine, relation (Rose and Cox) 747
-Promoting properties, induction in ration by exposure to ultra-violet light (Steenbock and Black) 405
— vitamin, yeast, tested for effect on animals (Deas) 5
Scurvy, acute, effect (Anderson and Smith) 181

H

Heat:
Milk, heat treatment of, on mineral metabolism of infants (Daniels and Stearns) 225
Hemoglobin:
Acidity of, effect of carbon monoxide on (Hastings, Sendroy, Murray, and Heidelberger) 317
Histidine:
Growth, relation to (Rose and Cox) 747
Honey:
Invertase in (Nelson and Cohn) 193
Hormone:
Ovarian, extraction and properties (Doisy, Ralls, Allen, and Johnston) 711
Hydrazine sulfate:
Injections in dogs, alkalosis produced by (Hendrix and McAmis) 45
Hydrogen ion:
Blood, colorimetric determination, at body temperature without buffer standards (Hastings and Sendroy) 695
Concentration of blood with coagulation, changes (Hirsch) 795
Hydrolysis:
Methylated peptides, rate (Levene, Simms, and Pfaltz) 445
Peptides, rate, relation of chemical structure to (Levene, Simms, and Pfaltz) 445

I

Insulin:
Carbohydrate metabolism of normal individuals, effect on (Blatherwick, Bell, and Hill) 241
Phlorhizin glycosuria (Colwell) 289
Invertase:
Honey (Nelson and Cohn) 193

Iron:
Salts, catalytic action, mechanism (Baudisch and Welo) 261
Isoelectric point:
Digestibility, relation to (Hertzman and Bradley) 275
Isomerization:
Isostrophanthidin (Jacobs and Collins) 387
α-Isostrophanthic acid:
(Jacobs and Collins) 399
α-Isostrophanthic dimethyl ester benzoate:
(Jacobs and Collins) 400
α-Isostrophanthidic acid:
Oxidation after isomerization with alkali (Jacobs and Collins) 401
α-Isostrophanthidic methyl ester:
(Jacobs and Collins) 395
α-Isostrophanthidic methyl ester benzoate:
(Jacobs and Collins) 396
α-Isostrophanthidic methyl ester oxime:
(Jacobs and Collins) 396
Isostrophanthidin:
Isomerization (Jacobs and Collins) 387
Oxidation with hypobromite (Jacobs and Collins) 393
α-Isostrophanthidin:
Oxidation after isomerization with alkali (Jacobs and Collins) 401
α-Isostrophanthidin oxime:
(Jacobs and Collins) 393

K

Ketolytic reaction:
(Shaffer and Friedemann) 585

L

Lactic acid:
Formation in phlorhizin diabetes (Loebel, Barr, Tolstoi, and Himwich) 9
Rôle in acidosis of ether anesthesia (Ronzoni, Koechig, and Eaton) 465
***l*-Leucic acid:**
Acetone-butyl alcohol fermentation, formation in (Schmidt, Peterson, and Fred) 163
Light:
Ultra-violet, exposure to, induction of calcifying properties in ration by (Steenbock and Black) 405
—, — —, — of growth-promoting properties in ration by (Steenbock and Black) 405
Lignoceric acid:
(Levene, Taylor, and Haller) 157
Liver:
Parathyroid tetany (Blumenstock and Ickstadt) 91

M

Magnesium:
Animal substances (Dienes) 77
Yeast nucleic acid as magnesium compound (Baumann) 1

l-Malic acid:
Product of alcoholic fermentation by yeast (DAKIN) 139
Menthol glycuronic acid:
Synthesis, in rabbit (QUICK) 679
Urine (QUICK) 667

Metabolism:
Carbohydrate, of normal individuals, effect of insulin on (BLATHERWICK, BELL, and HILL) 241
Mineral, of infants, heat treatment of milk on (DANIELS and STEARNS) 225
Nitrogen, low, with low carbohydrate diet in diabetes (PETRÉN) 355
Pentose (YOUNGBURG and PUCHER) 741
Phosphorus, of normal individuals, effect of insulin on (BLATHERWICK, BELL, and HILL) 241
Microchemical gravimetric technique:
(DIENES) 73
Milk:
Breast, dried, feeding (SMITH) 625
Enzyme, milk-coagulating, of *Solanum dasagnifolium* (BODANSKY) 365
Heat treatment, on mineral metabolism of infants (DANIELS and STEARNS) 225
Nutritive properties (MATTILL, CARMAN, and CLAYTON) 729
Milk—*continued:*
Rations high in fat, sterility in rats on, effectiveness of X substance in preventing (MATTILL, CARMAN, and CLAYTON) 729
Molybdic method:
Phosphorus, inorganic, in serum (BENEDICT and THEIS) 63
Muscle:
Protein concentration in muscle of calf, cow, and rabbit (HOWE) 493
Proteins, soluble, differential extraction (HOWE) 493
—, —, precipitation (HOWE) 493
Tissue, atrophy (CHEN, MEEK, and BRADLEY) 807
Myoalbumin:
(HOWE) 515
Myoglobulin:
(HOWE) 515
Myosinogen:
(HOWE) 515

N

Nitrogen:
Alfalfa plant, basic nitrogen (VICKERY) 117
— —, juice, nitrogenous constituents (VICKERY) 117
Determination in connection with wet combustion method for carbon (ANDERSON and SCHUTTE) 57
Metabolism, low, with low carbohydrate diet in diabetes (PETRÉN) 355

XUM

O

Oil:
Cod liver. *See* Cod liver oil.
Peanut. *See* Peanut oil.
Ovary:
Hormone, ovarian, extraction and properties (Doisy, Ralls, Allen, and Johnston) 711

P

Paramyosinogen:
(Howe) 514
Parathyroid:
Tetany, liver in (Blumenstock and Ickstadt) 91
Parathyroidectomy:
Blood of parathyroidectomized dogs, toxin in (Greenwald) 33
Peanut oil:
Lignoceric acid from (Levene, Taylor, and Haller) 158
Pentose:
Metabolism (Youngburg and Pucher) 741
Peptides:
Hydrolysis, rate, relation of chemical structure to (Levene, Simms, and Pfaltz) 445
Methylated, physical constants (Levene, Simms, and Pfaltz) 445
—, rate of hydrolysis (Levene, Simms, and Pfaltz) 445
—, synthesis (Levene, Simms, and Pfaltz) 445
Phenols:
Blood (Theis and Benedict) 67
Phlorhizin:
Diabetes. *See* Diabetes.
Glycosuria. *See* Glycosuria.
Phosphorus:
Animal substances (Dienes) 77
Inorganic, serum, molybdic method for (Benedict and Theis) 63
Metabolism of normal individuals, effect of insulin on (Blatherwick, Bell, and Hill) 241
Pigment:
Grape, chemistry (Anderson) 685
—, — (Anderson and Nabenhauer) 97
Pork:
Production on restricted rations, sunlight in relation to (Steenbock, Hart, and Jones) 775
Precipitation:
Proteins, soluble, of muscle (Howe) 493
Protein:
Concentration in muscle of calf, cow, and rabbit (Howe) 493
Intake, effect of temperature on (Denis and Borgstrom) 109
Muscle, soluble, differential extraction (Howe) 493
—, —, precipitation (Howe) 493
Spinach leaves (Chibnall) 303

S

Saliva:
Organic constituents (Updegraff and Lewis) 633

Salts:
Iron, catalytic action, mechanism (Baudisch and Welo) 261

Sarcosine:
Chloroacetyl (Levene, Simms, and Pfaltz) 450
Glycyl (Levene, Simms, and Pfaltz) 450

Sarcosyl-glycine:
(Levene, Simms, and Pfaltz) 451

Sarcosyl-sarcosine:
(Levene, Simms, and Pfaltz) 451

Scurvy:
Growth of guinea pigs, effect on (Anderson and Smith) 181
Nutrition of guinea pigs, effect on (Anderson and Smith) 181

Serum:
Carbon dioxide in, in presence of ether by Van Slyke method (Austin) 345
Chlorides of, in pathological conditions (Gram) 337
Phosphorus, inorganic, molybdic method (Benedict and Theis) 63

Solanum elaeagnifolium:
Milk-coagulating enzyme (Bodansky) 365

Spinach:
Protein from leaves (Chibnall) 303

Spinacin:
Protein from spinach leaves (Chibnall) 303

Sterility:
Rats on milk ration high in fat, effectiveness of X substance in preventing (Mattill, Carman, and Clayton) 729

Strophanthin:
(Jacobs and Collins) 387

Sunlight:
Pork production, relation to, on restricted rations (Steenbock, Hart, and Jones) 775

T

Temperature:
Protein intake, effect on (Denis and Borgstrom) 109

Tetany:
Parathyroid, liver in (Blumenstock and Ickstadt) 91

Thyroparathyroidectomy:
Chemical changes in blood of dogs after (Greenwald) 649

Tissue:
Muscle, atrophy (Chen, Meek, and Bradley) 807

Toxin:
Blood of parathyroidectomized dogs (Greenwald) 33

U

Urine:
Menthol glycuronic acid in (Quick) 667

XUM

V

Valine:
Zein, valine in (DAKIN) 137

Vitamin:
Fat-soluble (STEENBOCK and BLACK) 405
— (STEENBOCK, HART, and JONES) 775
Growth-promoting, yeast, tested for effect on animals (DEAS) 5

Vitamin B:
Adsorption by kaolin (LEVENE and VAN DER HOEVEN) 438
Concentration (LEVENE and VAN DER HOEVEN) 429

Vitamin B—*continued:*
Precipitation with barium hydroxide (LEVENE and VAN DER HOEVEN) 440

Y

Yeast:
Alcohol fermentation by, *l*-malic acid as a product (DAKIN) 139
Growth-promoting vitamin tested for effect on animals (DEAS) 5

Yeast nucleic acid:
Magnesium compound, yeast nucleic acid as (BAUMANN) 1

Z

Zein:
Valine in (DAKIN) 137